

# **SEXUALLY TRANSMITTED DISEASES "STDs" (Introduction)**

**BY**

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## SEXUALLY TRANSMITTED DISEASES "STDs"

- Ø When the term sexually transmitted diseases (STDs) is used, we usually think of the sexually transmissible infections (STIs), syphilis, gonorrhoea, AIDS, etc "



## Classification of STDs

### 1) Sexually transmissible infections "STIs"

#### Bacterial STIs

Syphilis  
Chancroid  
Lymphogranuloma  
venerum  
Granuloma inguinale  
Gonorrhoea  
Non-gonococcal urethritis

#### Viral STIs

AIDS  
Herpes progenitalis  
Condyloma accuminata  
Molluscum contagiosum  
Viral hepatitis B, C and D

#### Protozoal STIs

Trichomonas vaginalis

#### Parasitic STIs

Genital scabies  
Pediculosis pubis

<b>2) Sexually-induced allergic and immune reactions</b>	<b>Immune reactions to semen</b>	<b>Immune-infertility</b>
	<b>Allergic reactions to semen</b>	<b>Systemic or localized</b>
	<b>Allergic reactions to antigens carried by the sex partner</b>	<b>Connubial contact dermatitis</b>
<b>3) Sexually-induced malignancy</b>	<b>Cancer cervix</b>	
<b>4) Sexually-induced trauma</b>	<ul style="list-style-type: none"> <li>• <b>Penile fracture</b></li> <li>• <b>Defloration injury</b></li> <li>• <b>Purpura (orogenital sex)</b></li> <li>• <b>Lacerations (Sado-masochistic manoeuvres)</b></li> </ul>	

## **(1) SEXUALLY TRANSMISSIBLE INFECTIONS "STIs"**

### **Classification according to the clinical presentation**

<b>Genital ulcer syndrome</b>	<b>Syphilis Chancroid Lymphogranuloma venerum Granuloma inguinale Herpes progenitalis</b>
<b>Urethral discharge syndrome</b>	<b>Gonorrhea Non-gonococcal urethritis</b>
<b>Other local presentations of STIs</b>	<b>Condyloma accuminata Molluscum contagiosum Genital scabies</b>
<b>Systemically-presenting STIs</b>	<b>AIDS Viral hepatitis B, C and D</b>

## **(2) SEXUALLY-INDUCED ALLERGIC AND IMMUNE REACTIONS**

Allergic and immune reactions to semen may take one of the following forms:

Immune reactions to semen Immune reactions to semen	Immune-infertility	IgA, IgG, IgM - mediated
Allergic reactions to semen	Systemic allergic reaction	IgE -mediated
	Localized allergic reaction	
Allergic reactions to antigens carried by the sex partner	Connubial contact dermatitis	

# B- Allergic Reaction to Semen:

## LOCALIZED REACTION:

### Clinically:

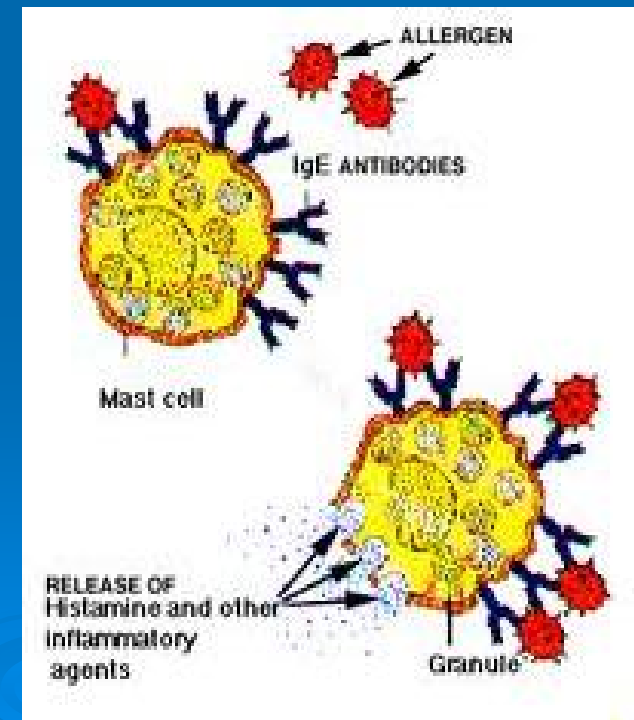
- Following ejaculation, vulval burning sensation, erythema, swelling and vaginal soreness occur
- Generalized pruritus
- Persists 2-72 hours

### Mechanism:

IgE mediated or cell mediated reaction

### Management:

- Hyposensitization
- Condom
- Antihistaminic



## SYSTEMIC REACTION:

Life-threatening anaphylaxis in females shortly after coital ejaculation (familial and non-familial types)

## Symptoms of immediate hypersensitivity:

- Severe asthmatic dyspnea
- Generalized urticaria
- Angioedema of lids, lips and tongue
- Severe pelvi-abdominal pain
- may be loss of consciousness





## Etiology:

- Familial type: genetic susceptibility (a topic diathesis)
- Non-familial type

Mechanism: In anaphylaxis, histamine release from basophils is provoked by IgE antibody towards:

1. A seminal plasma antigen or
2. A drug excreted in semen (Dicloxacillin)



## C- Connubial Contact Dermatitis

**Poison ivy  
(toxicodendron)  
dermatitis**



This is the most common due to frequent exposure, high prevalence of allergic people and the fact that antigen persists in skin for 3 days allowing transfer to sensitized persons.

## C- Connubial Contact Dermatitis

**Poison ivy  
(toxicodendron)  
dermatitis**



Oleoresin transferred by the hand leads to penile lesion (common site) and affection of the sex partner as well.

Scattered linear groups of papular and vesiculo-bullous eruption.

## C- Connubial Contact Dermatitis

### Reaction to perfumes

Allergic contact dermatitis has been reported due to I partner perfume (cinnamic alcohol) and cosmetics



## Reaction to medications

- Propylene glycol (in lubricating jelly)
- Benzoyl peroxide (for acne)



## Rubber condoms



1. Oedema and pruritus vulvae
2. Cheilitis and stomatitis (fellatio)
3. Proctitis and perianal dermatitis (in MSM)

## IUCD

Thread irritation or copper reaction (rare)



**Reaction to  
Para-amino  
compounds**

**Allergy to dyed hair**



**Irritant reaction**

- Caustic agents (transferred by hands or fomites)
- Connubial chloracne (fuel oil)
- Detergents and soaps



**Connubial  
contact  
urticaria**

**Flushing, swelling and facial  
pruritus reported with partner  
intake of beer  
and beverages**



**Reaction to  
vulvo-vaginal  
products**

**•Spermicidal & contraceptive  
chemicals**



**•Antifungal cream (for female  
genital candida)  
•Feminine hygeinic sprays**

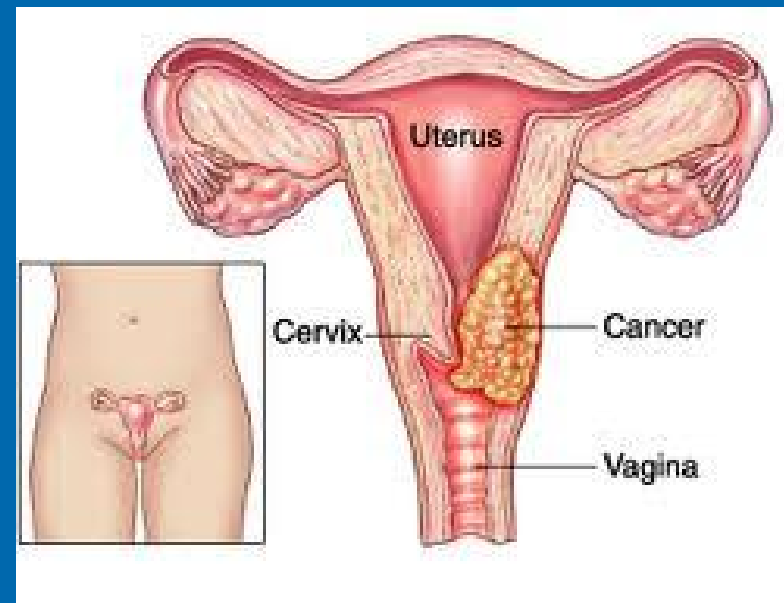


### (3) SEXUALLY-INDUCED MALIGNANCY

## CANCER CERVIX:

Why should we think of cancer cervix as an STD?

The concept of cancer cervix as an STD is based upon the following facts:

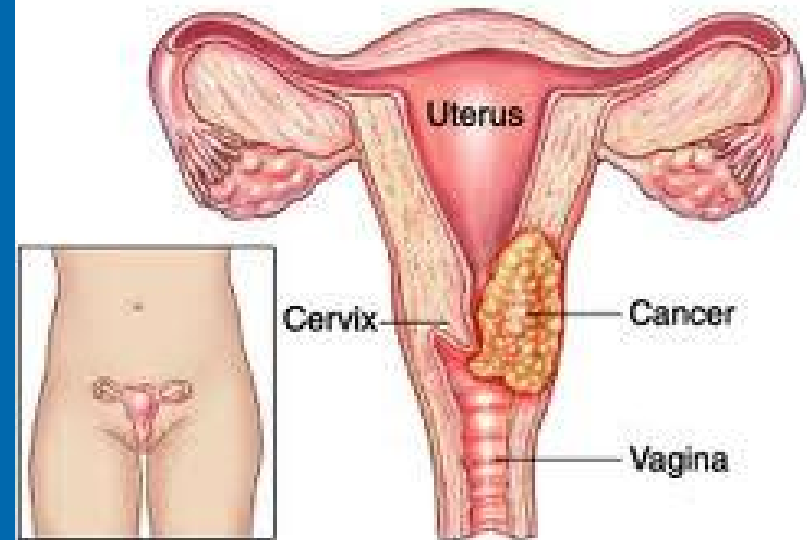


### (3) SEXUALLY-INDUCED MALIGNANCY

The concept of cancer cervix as an STD is based upon the following facts:

#### 1. Cancer cervix and coitus:

- Coitus is a prerequisite (cancer cervix is almost absent among nuns)
- Cancer cervix is less common among non married women
- High rate of cancer cervix among prostitutes
- .



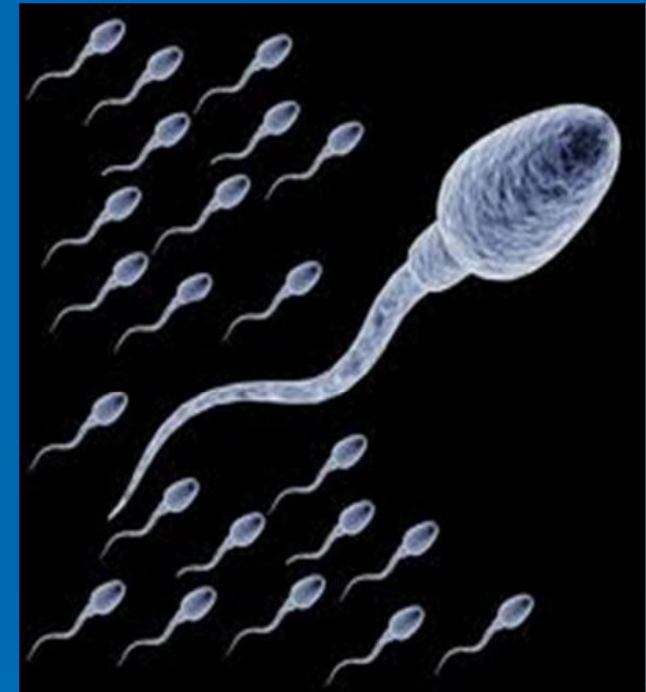
## 2. Cancer cervix and transmissible agent:

- ∅ There is a higher rate of cervical cancer among wives of males who has been at some time of their lives married to women with cancer cervix. Also there is higher rate of cervical cancer among wives of cancer penis patients (smegma)



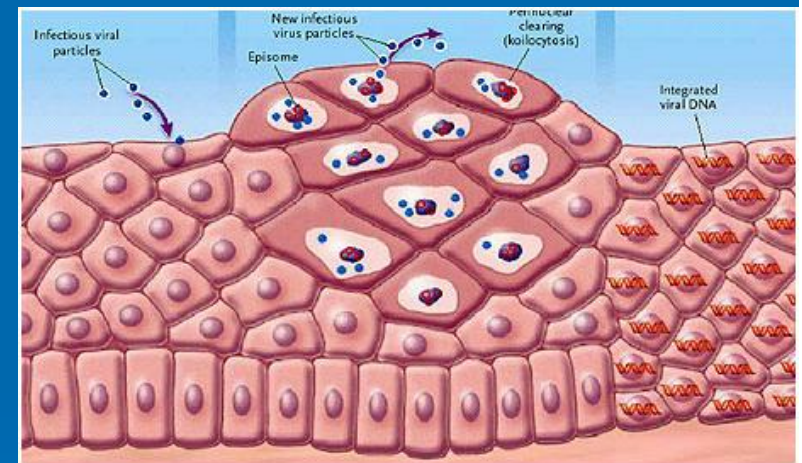
### **a) Sperms and cervical cancer:**

The sperm is an invasive cell. Premature acrosomal reaction may allow sperm penetration of the cervical epithelium. Integration of sperm DNA into chromosomes of cervical epithelial nuclei might cause metaplasia and CIN



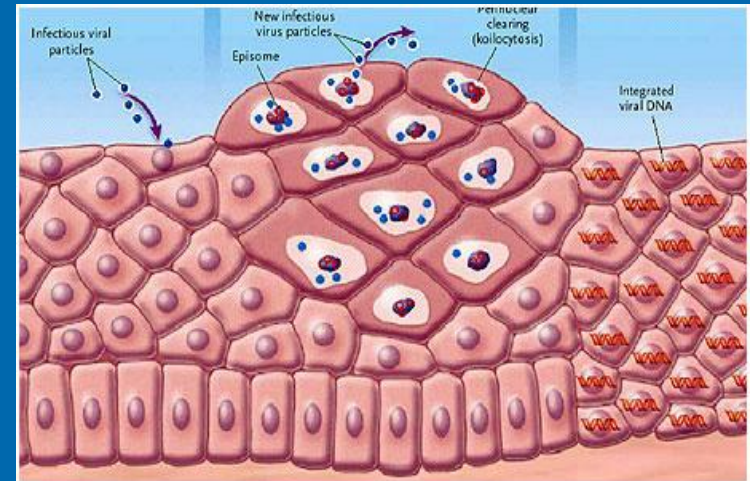
## **b) STIs agents and cancer cervix:**

Cancer cervix has a documented relation to HPV. Most cases of cervical cancer result from cervical infection by oncogenic types of HPV. More than 30 oncogenic types of and more than 70 non-oncogenic types of HPV are recognized.



## b) STIs agents and cancer cervix:

The oncogenic types in order of decreasing prevalence include **HPV-16, 18, 45, 31, 33, 58, 52, 35, 59, 56, 6, 51, 68, 39, 82, 73, 66** and **HPV-70**. These viruses are ubiquitous, and risk of infection during sexual activity is high.



## **b) STIs agents and cancer cervix:**

Although more than 100 specific types of HPV virus have been identified, **HPV-16** and **HPV-18** are responsible for 70% of invasive cervical cancers and **HPV-6** and **HPV-11** for 90% of genital warts. They are transmitted by sexual intercourse and can be effectively prevented by abstinence, regular use of condoms and safe sexual practices.





Cancer cervix has a controversial relation to **HSV-2**, **gonococci**, **chlarnydia**, **CMV**, **mycoplasma** (**but not ureaplasrna**)





## (4) SEXUALLY-INDUCED TRAUMA

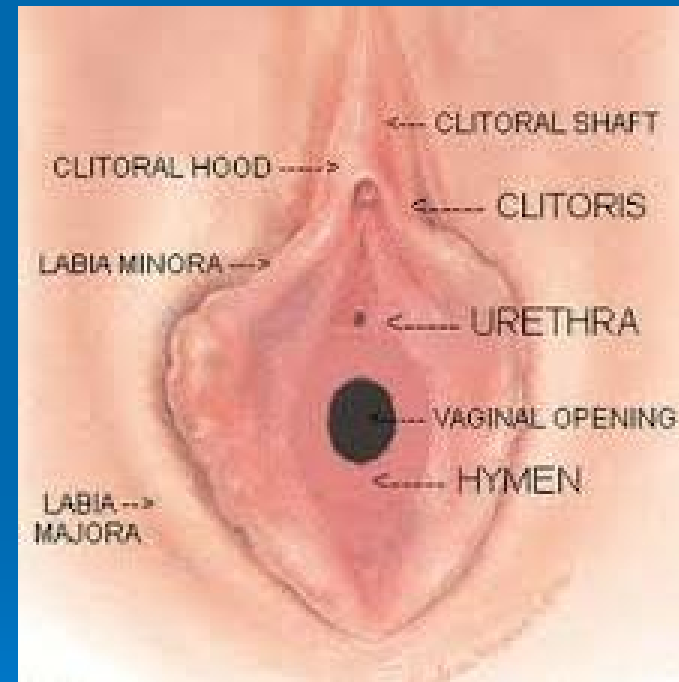
### 1. Penile Fracture.



## (4) SEXUALLY-INDUCED TRAUMA

### 2. Defloration injury:

forced defloration injury in the wedding night or during rape may lead to profuse bleeding from tears of labia minora or vestibule or deep cut in the vagina.



## (4) SEXUALLY-INDUCED TRAUMA

3. **Pupura.** (orogenital sex)

4. **Genital lacerations.** (Sado-masochistic manouvers)



## Factors affecting prevalence and incidence of STIs

### (A) Host factors

#### 1. Age:

The peak incidence of STIs is among the young sexually activity individuals (**15-35 years of age**).

Complications of STIs occur at older age groups (eg, neurosyphilis)

Neonates can also be victims of STIs being infected during pregnancy (e.g., congenital syphilis) or delivery (eg, ophthalmia neonatorum)

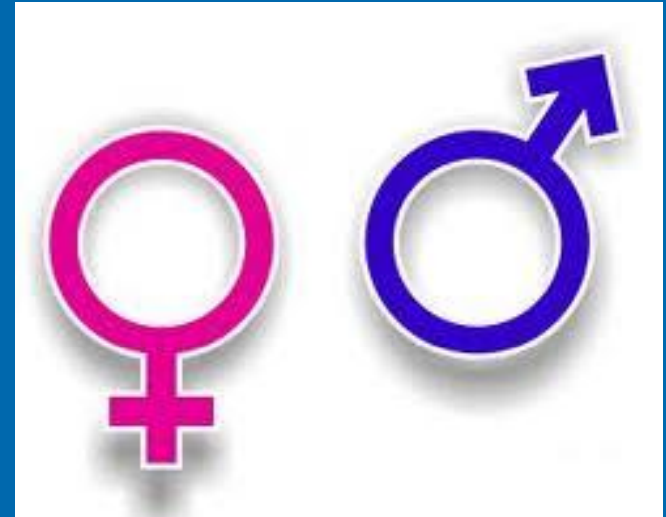


## Factors affecting prevalence and incidence of STIs

### (A) Host factors

**2. Gender:** Males present to STIs clinics more than females.

**3. Marital status:** Single people (unmarried, divorced, widowers or traveling away from their partners) are more vulnerable than married ones.



## Factors affecting prevalence and incidence of STIs

### (A) Host factors

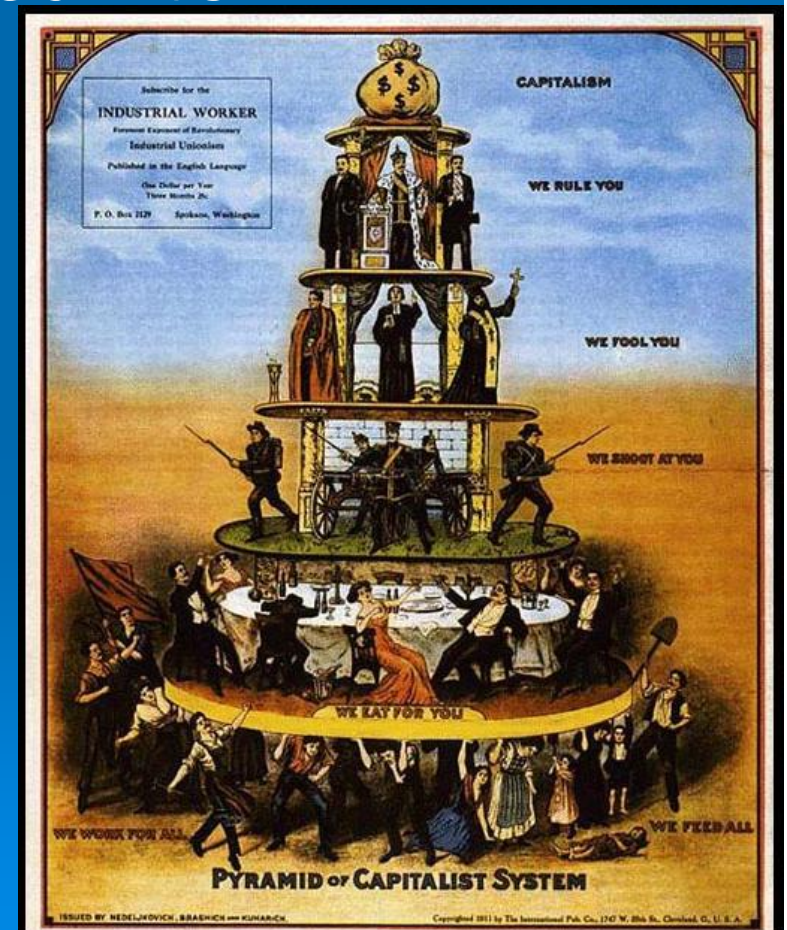
4. Special habits: STIs are more common among alcoholics and drug addicts.

5. Occupation: Certain occupations are associated with higher incidence of STIs than others e.g., barmen, night club workers, sailors, doctors, etc



## 6. Socio economic standard:

STIs are less prevalent among moderate socioeconomic class people compared to very low and high ones





## 6. Medical condition:

- Patients requiring repeated injections or blood transfusion (eg, haemophilia) have a higher chance to develop blood-borne STIs.
- Immuno-compromised individuals present with severe complications when they acquire STIs





8. Religious attitude: Religious persons are less prone to develop STIs
9. Sex education and cultural level: Lack of knowledge and preventive methods of STIs, particularly among ignorant people, make them easy victims for STIs
10. Sexual behaviour:
  - \* Multiple partners increases the risk of acquiring STIs
  - \* Homosexuality and orogenital sexual practice alter the classic presentation of some STIs



## **(B) Environmental factors**

Community factors that favour higher incidence of STIs are:

1. Poverty
2. Development of new communities
3. Modernization and industrialization
4. Illegal prostitution
5. Tourism

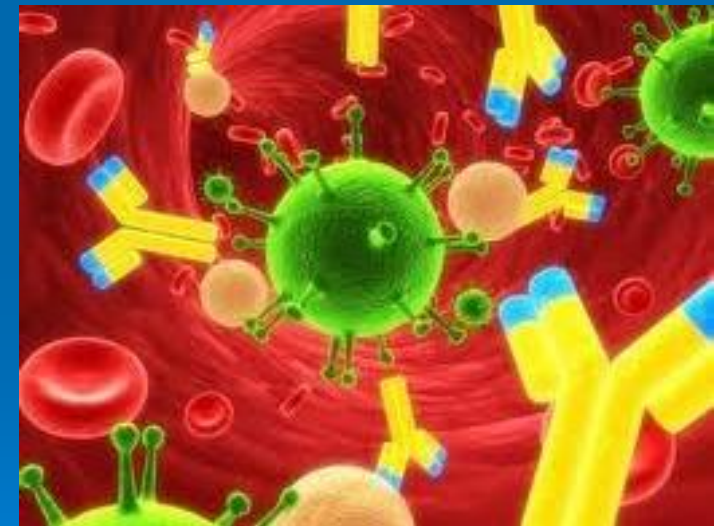


## **(C) Agent factors**

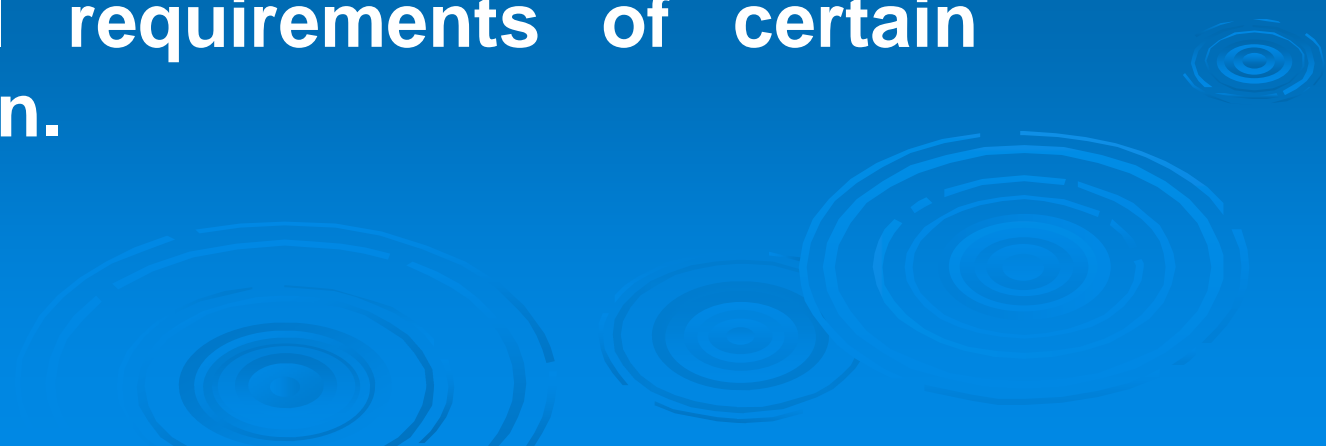
**The prevalence of STIs in a community is affected by certain factors related to the causative agent e.g.:**

**1.Organism virulence (recently, there is increased prevalence of highly virulent strains).**

**2.Rate of organism multiplication**



### **(C) Agent factors**

- 3. Susceptibility to chemotherapeutic agents (lack of effective antiviral agents)**
  - 4. Antibiotic resistant strains (bacterial mutation and penicillinase production)**
  - 5. Nutritional requirements of certain bacterial strain.**
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THANK YOU

